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LANDAU ASSOCIATES, INC.
Environmental and Geotechnical Services

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To Neal Thompson	From John Markus
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Mr. Dean Fowler, P.E.
Spokane County Utilities Department
1026 West Broadway
Spokane, Washington 99260

RE: COLBERT LANDFILL RD/RA
PHASE II CONSTRUCTION ACTIVITIES
REVIEW OF DRAFT NPDES SUBSTANTIVE REQUIREMENTS

Dear Dean:

We have reviewed the draft National Pollutant Discharge Elimination System Substantive Requirements dated February 28, 1994 prepared by the Department of Ecology. This letter contains our preliminary comments on the subject document. We may provide additional comments after further review. Our preliminary comments are as follows:

1. Page 4: The receiving water is the Little Spokane River, not the Spokane River. Spokane County is not subject to any requirements related to water quality in the Spokane River. Erroneous references to the Spokane River are also made on pages 6, 7, and 9.

2. Page 5: We do not agree that these submittals and the submittal frequencies are reasonable. Ecology should justify the need for them. We believe that Ecology should prepare the Effluent Mixing Zone Report (see comment 14). We believe that no Acute Biomonitoring Study of the Effluent is necessary; the need for such a study should be determined based on the results of the Chronic Biomonitoring Study. If no chronic problems are identified, it is implausible that there could be acute problems. An Acid Back Wash Management and Disposal Plan should be required only in the event that the facility requires acid cleaning and Spokane County decides to dispose of the spent acid solution via the effluent rather than at an off-site facility. Annual updates to the Spill Control Plan and Treatment System Operating Plan are not warranted; we recommend an initial submission with notification upon substantial changes in remedial action treatment facility operations/activities.

3. Page 7: Ecology's summary of the Nature and Extent of the Problem fails to provide justification for the extensive monitoring and reporting requested elsewhere in the document. As Ecology's summary clearly states, only six contaminants of concern have been identified and are included in the Consent Decree. All six are chlorinated volatile organic compounds. Neither Ecology's summary nor the Consent Decree list any metals, non-chlorinated volatile organic compounds, semi-volatile organic compounds, or pesticides. Exhaustive groundwater monitoring for these contaminants has been accomplished and we are unaware of any data that would suggest that these contaminants would suddenly appear. Consequently, the monitoring frequencies for these contaminants as shown on page 9 are not justifiable (see comment 6).

4. Page 8: The effluent limitations shown in the table are incorrect and not consistent with the Consent Decree. The limitations listed for some of the contaminants of concern are a factor of 10 lower than listed in the Consent Decree (i.e., the correct values are 25 ppb for methylene

chloride, 7 ppb for tetrachloroethene, etc.). These limitations must be revised to be consistent with the Consent Decree. Moreover, pursuant to Landau Associates letter to Dean Fowler dated March 8, 1993, effluent limitations should only be set for contaminants that are capable of being removed by the remedial action treatment facility. To establish limitations for other contaminants or substances implies Spokane County can (or will) control the discharge of these parameters, which is clearly not possible unless additional treatment processes are incorporated into the remedial action treatment facility, which could only be accomplished at substantial cost. Also, the requirements for daily monitoring are not justifiable and are not consistent with the sampling frequencies shown in Section S2 on page 9.

5. Page 9: The remedial action treatment facility neither creates nor removes phosphorus from the groundwater. Although phosphorus may be a substance of interest, it is not justifiable to establish an effluent limitation for phosphorus. If an algal problem occurs in the Little Spokane River and the remedial action is determined to be the cause, Spokane County could temporarily mitigate the problem by reducing the pumping rates of those wells with elevated phosphorus concentrations during the growth season.

6. Page 9: We recommend Spokane County monitor at the outfall for all of the parameters listed in table in Section S2 on an annual basis, beginning within the first 30-days of facility operation, excepting the six contaminants of concern for which the proposed monthly monitoring frequency is reasonable. If to-be-determined action levels are exceeded, more frequent monitoring should be performed. The proposed monthly monitoring for metals (total), inorganic/conventional, and volatile organics, and quarterly monitoring for organochlorine pesticides/PCBs is not justifiable. These contaminants have been demonstrated through extensive previously sampling to not be present in the groundwater at concentrations of concern. Finally, we recommend Spokane County monitor for phosphorus on a monthly basis. All effluent samples should be collected as grab samples rather than composites as proposed by Ecology, since it is unlikely that there will be significant changes in flow or character of the groundwater discharged over 24-hour periods.

   We recommend Spokane County agree to monitor upstream of the outfall for the six contaminants of concern and phosphorus, but no other substances. We recommend that this monitoring be performed on the proposed quarterly basis. The upstream samples should be composites of samples collected each hour for a 24-hour period.

7. Page 11: See comment 14 regarding outfall evaluation.

8. Page 12: Ecology should define what constitutes a "reasonable potential to exceed" the State Water Quality Standards.

9. Page 14: An Acute Biomonitoring Study should be performed only if the chronic study indicates significant ecological affects due to the remedial action discharge. If an acute study is determined to be required, the use of one, not three, organisms is justifiable.

10. Page 15: As previously noted in comment 6, most sampling is more appropriately accomplished through grab sampling rather than composite sampling. If Ecology disagrees, they should provide clarification regarding how they will determine whether grab or composite samples better represent toxicity, as indicated in Section S6.B.1.

11. Pages 15 and 17: Control tests for effluent biomonitoring should be performed in water collected from the Little Spokane River a short distance upstream of the outfall.

12. Page 17: Ecology should specify the dilution required for the rotating single dilution screening tests.

13. Page 19: In Section S9, Ecology should specify the triggers for determining potential adverse biological effects.

14. Page 19: In Section S10, We recommend Spokane County request that Ecology complete the hydrodynamic analysis of the outfall according to the methods described in Section S5.

15. Page 20: In Section S11.C, Ecology should clarify the threshold quantities for the list of oil and chemicals, and should define "chemicals".

16. Page 20: In Section S12.B, Ecology should clarify what is meant by "production levels". Does this mean the total groundwater pumping and treatment flow rate? What additional monitoring and reporting, if any, are required for low "production rates"?

17. Page 21: In Section S12.C, Ecology should clarify what maintenance activities they are concerned with.

Please contact me if you have any questions.

LANDAU ASSOCIATES, INC.

By:

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Project Manager

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